



## Fact Sheet

### South Carolina's Business RECYCLING Assistance Program

# Corrugated Cardboard Recycling

No matter what type of business you have, you probably have some old corrugated cardboard you manage. The good news is cardboard is easily recyclable and if your business generates large quantities of it, you may be able to reduce your disposal costs and potentially make money by recycling it. Fortunately, there are well-established markets in South Carolina for cardboard. And by reducing the amount of cardboard used or recycling it, you can:

- ♻️ Avoid expensive landfill disposal fees.
- ♻️ Earn revenue from recycling sales.
- ♻️ Reduce unnecessary purchases and product consumption.
- ♻️ Improve environmental performance of the facility.
- ♻️ Help meet local recycling goals or disposal restriction ordinances.
- ♻️ Help keep a valuable resource out of our state's landfills as well as save natural resources and energy.

## Evaluate Cardboard Usage

To start a cardboard reduction plan for your business, you should first review all the current uses of cardboard in your facility. Be sure to take into account how and why you use cardboard and what happens to it once you are done with it. Can you use it again or will it just be thrown in the trash? Are there alternative storage or shipping solutions that could be used?

You can contact your local recycling coordinator or DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348** for ideas about what to do with your cardboard and ask questions about recycling opportunities.

## Source Reduction and Reuse Opportunities

The most cost-effective way to reduce your waste management costs as well as improve environmental performance is to minimize waste at the source. There are

several ways your business may be able to reduce or reuse cardboard to accomplish this task. Consider these suggestions:

- ♻️ Eliminate cardboard boxes as a packaging source if they can be substituted with another material, such as rubber, plastic or metal bands.
- ♻️ Reuse incoming shipping containers to transport your products.
- ♻️ Choose more durable cardboard boxes to extend product life and reusability.
- ♻️ Substitute other types of containers that are reusable, such as durable plastic crating.
- ♻️ Review cardboard package sizes to determine if smaller boxes could be eliminated in favor of larger boxes or bulk handling.
- ♻️ Work with your vendors and customers to reduce cardboard consumption and implement reusable systems.


## Establishing a Recycling Program




If you can't reduce cardboard waste through source reduction or reuse, then you should recycle it. One of the key decisions you will need to make is whether you want to have an in-house recycling program that relies on using municipal or county collection of cardboard or whether you want to contract with a private firm to handle your cardboard recycling. Just make sure that whatever method you choose not only fits your business needs, but also will be successful in eliminating cardboard waste.


First, you need to set up collection containers at your facility. You may have several collection bins around your facility or have one centralized collection area. To find a hauler for your collected materials, contact your local solid waste department or call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348**.


If you decide to hire a private hauler, make sure to get competitive bids to ensure fair pricing. You may want to ask each prospective hauler to supply the following information:


 **Material preparation requirements.** Typically only your smaller hauling firms are willing to break down boxes. Some contractors may require you to flatten your cardboard as well as to stack or load cardboard into designated bins.


 **Collection containers.** Are they provided, and if so, at what cost?

 **Fees.** You need a firm handle on what fees are involved and how often the hauler plans to collect from your facility. You should carefully monitor cardboard volumes to maximize container capacity. *Beware!* Some haulers try to make money from the frequency of collection runs, regardless of whether the container is full or not.


 **Allocation of revenue.** If the hauler/processor pays for materials, establish how the price and payment schedule are determined. Some provide free transportation.


 **Terms of the contract.** You may want to agree to a short-term trial contract, say three to four months, to give you a chance to evaluate the hauler's service and equipment. Your contract should include a cancellation clause and clearly spell out who is responsible for equipment or container repair and cleaning. Remember, long-term contracts may prevent you from future waste reduction or recycling opportunities, but you also may be able to lock-in a better price if markets fluctuate. One or two year contracts with an option to extend may be your company's best bet.

 **Periodic weight data.** Having regular weight information provided will help you calculate the savings from cardboard recycling and allow you to report or publicize your company's accomplishments. Some haulers/processors estimate tonnage only, while others actually weigh materials. You may request weekly or monthly receipts.

 **References.** Ask the hauler/processor to provide you with names and telephone numbers of some satisfied clients. You can get valuable information as to how reliable the hauler/processor is and any potential pitfalls.

pick up cardboard, baling several materials for recycling, or sharing a baler with another company. Consider these guidelines:

 **Determining baler size.** Baler size is application-specific and based on available storage space, collection and handling methods, and buyer specifications. If it takes 40 minutes to load and strap a bale from a vertical baler (300 - 1,000-pound bales) and all cardboard is stored at the baler location, you need at least one employee to load the baler and strap the bale. Unless your facility is generating very high volumes (greater than 25 tons a month), a vertical baler should have sufficient capacity.

 **Considering baler costs.** In addition to the cost of renting or purchasing a baler, you need to account for labor costs involved in having personnel load cardboard into the baler and strapping the bale versus the time to collect and break down boxes to load into your collection bin. Other costs include baling wire, electrical usage and annual maintenance.

**NOTE:** Depending on your business, you may also be able to bale other recyclable materials, such as plastic film wrap, textile scraps and other plastics, making a baler even more useful.

In South Carolina, if your business generates more than eight tons a month, there are several recyclers who will provide you with a vertical baler, buy your cardboard and even train your operator. To find out cardboard processors in your area, contact DHEC's Office of Solid Waste Reduction and Recycling hot line at **1-800-768-7348**.

Some companies that generate large quantities of cardboard select stationary compactors attached to a 30-yd<sup>3</sup> closed container as an alternative to balers. Your hauler can help determine if the volume your business generates merits a stationary compactor and provide you with a cost estimate. The costs and benefits of a stationary compactor can easily be compared to those of baling. Compacting reduces the number of pickups by your hauler, which can save you money. Facilities should carefully compare the higher cost of the compactor rental versus the potential savings from fewer collections of loose loads.

## Employee Education

The success of any waste reduction program depends on employee participation and education. You must educate your employees about the new practices your business is adopting to reduce waste and recycle cardboard. These efforts may take many forms - from announcements at staff meetings and individual instruction to signage and posters. Be sure to ask for suggestions because the people actually implementing the program may have even more ideas about how to reduce waste at your facility.

## Baled or Compacted?

While many businesses recycle loose corrugated cardboard, you may want to consider the economics of baling. First, determine what bale sizes and purchase prices are acceptable from your cardboard recycler. If loose cardboard is currently selling at \$20 per ton, this same cardboard in baled form may bring \$30 per ton. You could have additional savings by reducing the number of times your hauler must